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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/596,169	06/16/00	SUNSHINE	S 18564-003610

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EXAMINER

TSAI, C

ART UNIT**PAPER NUMBER**

2857

DATE MAILED: 05/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/596,169

Applicant(s)

SUNSHINE ET AL.

Examiner

Carol S Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 12-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5.
- 18) ☒ Interview Summary (PTO-413) Paper No(s). 9.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

- I. The species best illustrated by claims 1-11, and 19-22.
- II. The species best illustrated by claims 12-18.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is deemed generic.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. A telephone call was made to Joseph R. Snyder on 05/08/01 to request an oral election to the above restriction requirement, and resulted in an election of group I without traverse.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

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currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1, 4, 6, 7, 10, 11, 19, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,196,057 B1 to Discenzo.

With respect to claims 1, and 19, Discenzo discloses a distributed sensing system in a networked environment for identifying an analyte, the system comprising: a first sensor array connected to the network comprising sensors capable of producing a first response in the presence of a chemical stimulus (see col. 4, lines 2-4); a second sensor array connected to the network comprising sensors capable of producing a second response in the presence of a physical stimulus (see col. 2, lines 57-62; col. 3, line 67 to col. 4, lines 1-2; col. 4, lines 4-6); a computer connected to the network having an algorithm in which the first response and the second response are processed to identify the analyte (see Fig. 2 and 3 , and col. 8, lines 28-40).

As to claims 4 and 22, Discenzo also discloses the distributed sensing system in a

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networked environment for identifying an analyte in which each sensor of the second sensor arrays is a member selected from the group consisting of an optical sensor, a mechanical sensor, a radiation sensor, a thermal sensor and combination (see col. 3, line 63 to col. 4, line 11).

As to claim 6, Discenzo also discloses the distributed sensing system in a networked environment for identifying an analyte in which each sensor of the second sensor array is an thermal sensor (see col. 3, line 67 to col. 4, line 1).

As to claim 7, Discenzo also discloses the distributed sensing system in a networked environment in which the transmission of the first response is conducted via wired communications (see Abstract, lines 1-6).

As to claims 10 and 11, Discenzo also discloses the distributed sensing system in a networked environment for identifying an analyte in which the networked environment is a member selected from the group consisting of a workwide computer network, an internet, the Internet, a wide area network, a local area network, an intranet and combinations (see col. 8, lines 28-40).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Discenzo in view of U.S. Patent No. 5,469,369 to Rose-Pehrsson et al.

As noted above, Discenzo discloses the claimed invention, except for the distributed sensing system in a networked environment in which the algorithm selects the most relevant sensor modality in the first and second array to identify the analyte.

Rose-Pehrsson et al. teach the distributed sensing system in a networked environment in which the algorithm selects the most relevant sensor modality in the first and second array to identify the analyte (see col. 9, lines 1-13 and lines 33-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Discenzo's apparatus to include the distributed sensing system in a networked environment in which the algorithm selects the most relevant sensor modality in the first and second array to identify the analyte, as taught by Rose-Pehrsson et al., because a diverse set of sensors with strong, selective, and uncorrelated responses can more effectively spread different vapors out in feature space, facilitating discrimination (Rose-Pehrsson et al. col. 14, lines 25-28).

8. Claims 3, 5, 8, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Discenzo in view of U.S. Patent No. 6,170,318 B1 to Lewis.

As noted above, with respect to claims 3, 5, and 21, Discenzo discloses the claimed invention, except for the distributed sensing system in a networked environment in which each sensor of the first sensor array is a member selected from the group consisting of a bulk conducting polymer film, a semiconducting polymer sensor, a surface acoustic wave device, a fiber optic micromirror, a quartz crystal microbalance, a conducting/nonconducting regions sensor, a dye impregnated polymeric coatings on optical fiber and combinations.

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Lewis teaches the distributed sensing system in a networked environment in which each sensor of the first sensor array is a conducting/nonconducting regions (see col. 3, lines 61-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Discenzo's apparatus to include the distributed sensing system in a networked environment in which each sensor of the first sensor array is conducting/nonconducting regions, as taught by Lewis, in order to provide a response to the presence of vapor in contact with sensors (Lewis col. 28, lines 19-20).

As to claim 8, Discenzo does not disclose the distributed sensing system in a networked environment in which the transmission of the first response is conducted via wireless communications.

Lewis teaches the distributed sensing system in a networked environment in which in which the transmission of the first response is conducted via wireless communications (see Figs. 21, 24, 25, 26, 27, 29, 31, 32, and 33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Discenzo's apparatus to include the distributed sensing system in a networked environment in which the transmission of the first response is conducted via wireless communications, as taught by Lewis, in order to provide substantial advantages in terms of performance, weight, and reduced size.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Discenzo in view of Lewis as applied to claims 1 and 8 above, and further in view of U.S. Patent No. 5,728,581 to Schwartz et al.

As noted above, Discenzo in combination with Lewis teach all the features of the claimed invention, but do not disclose the distributed sensing system in a networked environment in which the wireless communications are implemented using communications technologies selected from a member of a group consisting of infrared technology, satellite technology, microwave technology and radio wave technology.

Schwartz et al. teach the distributed sensing system in a networked environment in which the wireless communications are implemented using communications technologies selected from a member of a group consisting of infrared technology, satellite technology, microwave technology and radio wave technology (see col. 16, lines 51-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Discenzo in combination with Lewis's apparatus to include the distributed sensing system in a networked environment in which the wireless communications are implemented using communications technologies selected from a member of a group consisting of infrared technology, satellite technology, microwave technology and radio wave technology, as taught by Schwartz et al., in order to measure the CO₂ (Schwartz et al. col. 16, lines 53-54).

Prior Art References

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McFarland et al. disclose methods and apparatus for screening diverse arrays of materials.

Lewis et al. disclose chemical sensors for detecting analytes in fluids comprise first and second conductive elements (e.g., electrical leads) electrically coupled to and separated by a chemically sensitive resistor which provides an electrical path between the conductive elements.

Lewis et al. disclose a sensor array for detecting a microorganism comprising first and second sensors electrically connected to an electrical measuring apparatus, wherein the sensors comprise a region of nonconducting organic material and a region of conducting material compositionally that is different than the nonconducting organic material and an electrical path through the regions of nonconducting organic material and the conducting material.

Lewis et al. disclose a sensor array for detecting analyte in a fluid.

Lewis et al. disclose a sensor array for detecting an analyte in a fluid, comprising at least first and second chemically sensitive resistors electrically connected to an electrical measuring apparatus, wherein each of the chemically sensitive resistors comprises a mixture of nonconductive material and a conductive material.

Lewis et al. disclose chemical sensors for detecting analytes in fluids comprise first and second conductive elements (e.g. electrical leads) electrically coupled to and separated by a chemically sensitive resistor which provides an electrical path between the conductive elements.

Corrigan et al. disclose an explosive detection screening system used for the detection of explosives and other controlled substances such as drugs or narcotics.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (703) 305-0851. The

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examiner can normally be reached on Monday-Thursday from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (703) 308-1677. The fax number for TC 2800 is (703) 305-7382. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (703) 308-1782.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 308-7382. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. Tsai *CST*

05/10/01

